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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,023	08/21/2001	Johnnes Adrianus Thomassen	949.1061	7576
21831	7590	10/31/2003		
STEINBERG & RASKIN, P.C. 1140 AVENUE OF THE AMERICAS, 15th FLOOR NEW YORK, NY 10036-5803			EXAMINER MENON, KRISHNAN S	
			ART UNIT	PAPER NUMBER

1723

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/934,023

Applicant(s)

THOMASSEN, JOHANNES  
ADRIANUS

Examiner

Krishnan S Menon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in--

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claims 1,2,4 and 5 are rejected under 35 U.S.C. 102(a and e) as being clearly anticipated by Illias et al (US 6,168,714 B1).

Illias (714) discloses a filter system of interconnected membrane filters (hollow fiber membranes, each hollow fiber can be considered as a filter by itself, and they are inter-connected -- see col 6 lines 43-50) in which the feed fluid flow is reversed as in instant claim 1 (fig 2A and 2B, col 3 lines 1-45, col 4 line 25-col 5 line 23). The system has plurality of valves and control valves as in instant claim 2. On end of each of the filters has a filter head for connecting filters to one-another within the network as in claim 4 (see col 6 lines 43-50: the membrane module is a hollow fiber module having 13 fibers, each fiber can be considered as a membrane (or filter) by itself; and the fiber ends in a hollow fiber module are potted in a tube-sheet; the fiber ends open into a common chamber/head, which connects the filters to one-another as claimed). The filters of the network (the hollow fibers) are substantially the same as one-another as claimed, and the (hollow fiber)

membranes are configured suitable for filtering the flow in two opposing directions (see fig) as in claim 5.

2. Claims 1,2,4 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by EP 0 355 633 A1.

EP (633) discloses a membrane filtration plant with several membrane filters in parallel as in instant claim 4 (common filter head connecting filters to one-another), and having feed flow reversal as in instant claim 1, with plurality of valve and control valve system for the flow reversal as in instant claim 2 and the filters substantially the same as one-another, suitably connected for filtering flow in at least two opposing directions as in claim 5 (See cols 5 and 6 and fig 3)

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Illias (714) in view of Hartmann (US 6,083,390)

Illias (714) discloses a membrane filter system having flow reversal as in instant claim 1 (fig 2A and 2B). Illias does not teach multiple filters in series connected co-axially, and in parallel, with the filters connected head to head without a lot of piping in between as in instant claim 3. However, it is a common practice in the membrane filtration industry to have filter elements connected in

series coaxially, and in parallel, with little or no interconnecting piping, as is shown by Hartmann (see figures and col 1 lines 25-46). It would be obvious to one of ordinary skill in the art at the time of invention to connect multiple filters via their head ends to make up a plant for increased filtration capacity.

### *Response to Arguments*

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Arguments re Illias ref and EP ref: applicant argues that Illias ref does not teach a network of multiple interconnected filters. It may be noted that the applicant uses open-ended claim language. (Plant: a factory or a workshop for the manufacture of a particular product: Webster's collegiate dictionary, 10<sup>th</sup> ed). There is nothing in the claims to suggest a structure that is different from what the two references teach. It may also please be noted that the references have hollow fiber or tubular filters in a single bundle, which constitute several filters in parallel, and the claim language does read into such a filter.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the present case, the secondary ref is used to show that it is a common practice to increase the

filtration capacity by providing several single filters, which are similar, in parallel and/or series arrangements. The ref also teaches how to connect them without external piping, even though having external piping to interconnect connect them does not diminish the effectiveness of the system significantly.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon  
Patent Examiner

  
JOSEPH DRODGE  
PRIMARY EXAMINER